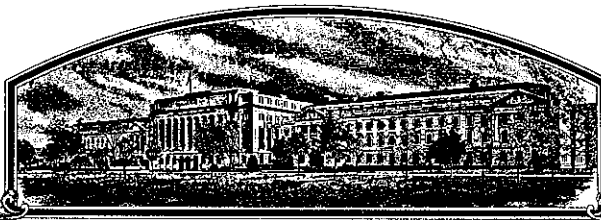


No.



8500210

# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

**Dairyland Seed Co., Inc.**

Whereas, THERE HAS BEEN PRESENTED TO THE  
**Secretary of Agriculture**

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (ACT 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'DSR-297'



Attest:

*Herbert H. Evans*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

In Testimony Whereof, I have hereunto set  
my hand and caused the seal of the Plant  
Variety Protection Office to be affixed  
at the City of Washington, D. C.  
this 30th day of January in  
the year of our Lord one thousand nine  
hundred and eighty-seven.

*Richard E. Lyng*  
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

FORM APPROVED: OMB NO. 0581-0055

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

## APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

1. NAME OF APPLICANT(S) Dairyland Seed Company, Inc.		2. TEMPORARY DESIGNATION 28382		3. VARIETY NAME DSR-297	
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 3570 Hwy. H, P. O. Box 958 West Bend, WI 53095		5. PHONE (Include area code) 414-338-0163		FOR OFFICIAL USE ONLY PVPO NUMBER 8500210	
6. GENUS AND SPECIES NAME Glycine max		7. FAMILY NAME (Botanical) Leguminosae		FILING DATE 9/16/85 TIME 2:00 <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.	
8. KIND NAME Soybean		9. DATE OF DETERMINATION Jan. 21, 1985		FEE RECEIVED AMOUNT FOR FILING \$1,800 DATE 8/1/85 AMOUNT FOR CERTIFICATE \$ 200. <sup>00</sup> DATE 1/6/87	
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation				11. IF INCORPORATED, GIVE STATE OF INCORPORATION Wisconsin	
12. DATE OF INCORPORATION Dec. 19, 1963				13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS Mr. Thomas G. Strachota, Dairyland Seed Co., Inc. 3570 Hwy. H, P. O. Box 958 West Bend, WI 53095 PHONE (Include area code): 414-338-0163	

## 14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

- a. ☐ Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)  
b. ☐ Exhibit B, Novelty Statement.  
c. ☒ Exhibit C, Objective Description of Variety (Request form from Plant Variety Protection Office.)  
d. ☐ Exhibit D, Additional Description of Variety.  
e. ☐ Exhibit E, Statement of the Basis of Applicant's Ownership.

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.) ☐ Yes (If "Yes," answer items 16 and 17 below) ☒ No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

☐ Yes☒ No

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

☐ Foundation☐ Registered☐ Certified

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?

☐ Yes (If "Yes," give date)☒ No

19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?

☐ Yes (If "Yes," give names of countries and dates)☒ No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT

DATE

SIGNATURE OF APPLICANT

DATE

8/15/85

'DSR-297'

Dairyland Seed Co., Inc.

## Exhibit A: Origin and Breeding History of Cultivar

1. 'DSR-297' is a soybean cultivar derived from a cross of 'Beeson' x 'Williams 79' by the pedigree method of breeding.

<u>2. Generation</u>	<u>Step</u>
F <sub>0</sub>	Hand Cross
F <sub>1</sub>	F <sub>1</sub> Increase
F <sub>2</sub>	Selection
F <sub>3</sub>	Selection
F <sub>4</sub>	Selection
F <sub>5</sub>	Increase
F <sub>6</sub>	Yield Test
F <sub>7</sub>	Yield Test-Increase
F <sub>8</sub>	Yield Test-Increase
F <sub>9</sub>	Yield Test-Increase

'DSR-297'

Dairyland Seed Company, Inc.

## Exhibit A - Origin and Breeding History of the Variety

## 1. Statement on Uniformity - Variant Levels

'DSR-297' is a uniform and stable soybean cultivar with commercially acceptable and predictable variant levels as follows:

for flower color, up to 0.1% purple

for pubescence color, up to 0.32% gray

for hilum color, up to 1.48% non-brown, consisting of black, tan, buff, and yellow

for height, up to 0.2% taller (6-8" taller)

## 2. Statement on Stability - Generations of Reproduction

The following seed reproduction procedure should be used for 'DSR-297' to maintain its stability.

Each year or every other year, breeder seed will be produced from breeder seed of the previous generation. Each seed will be hand picked for uniformity, and the field rogued for any off-types.

Depending on the certifying state, foundation seed will be produced from this breeder seed for two generations in a foundation seed - recurrent foundation seed system or one year for each class in a foundation seed - registered seed system.

Certified seed will be but one generation.

'DSR-297'

Dairyland Seed Co., Inc.

## Exhibit B: Novelty Statement

'DSR-297' is most similar to the cultivar 'DSR-207' in overall appearance, but differs in a couple characters. 'DSR-297' has large leaflets and a bushy plant type, while 'DSR-207' has medium sized leaflets and an intermediate plant type. The table below lists these differences:

<u>Cultivar</u>	<u>Leaflet Size</u>	<u>Plant Type</u>
'DSR-297'	Large	Bushy
'DSR-207'	Medium	Intermediate

'DSR-297'

Dairyland Seed Company, Inc.

Addition to  
Exhibit B - Novelty Statement

'DSR-297' also differs from 'DSR-207' in being 7.3 days later in maturity than 'DSR-207'.

Data to support this are:

Year: 1984

Data are days from 12/31/83

	<u>'DSR-297'</u>	<u>'DSR-207'</u>
Locations:		
S. Wisconsin-Dryland	267	260
-Irrigated	276	269
Light -Dryland	268	260
$\bar{x}$	270.3a*	263.0b*
LSD .01 =	3.3	

\*Difference is significant 0.01% level

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
LIVESTOCK, MEAT, GRAIN & SEED DIVISION  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MARYLAND 20705

EXHIBIT C  
(Soybean)

Revised 7 August 1985

OBJECTIVE DESCRIPTION OF VARIETY  
SOYBEAN (*Glycine max* L.)

NAME OF APPLICANT(S) Dairyland Seed Co., Inc.	TEMPORARY DESIGNATION 28382	VARIETY NAME DSR-297
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) P. O. Box 958 West Bend, WI 53095		FOR OFFICIAL USE ONLY PVPO NUMBER <b>8500210</b>

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g.,  ).

## 1. SEED SHAPE:

☐

1 = Spherical (L/W, L/T, and T/W ratios =  $\leq 1.2$ )  
3 = Elongate (L/T ratio  $> 1.2$ ; T/W =  $\leq 1.2$ )

2 = Spherical Flattened (L/W ratio  $> 1.2$ ; L/T ratio =  $\leq 1.2$ )  
4 = Elongate Flattened (L/T ratio  $> 1.2$ ; T/W  $> 1.2$ )

## 2. SEED COAT COLOR: (Mature Seed)

☐

1 = Yellow

2 = Green

3 = Brown

4 = Black

5 = Other (Specify) \_\_\_\_\_

## 3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

☐

1 = Dull ('Corsoy 79'; 'Braxton')

2 = Shiny ('Nebsoy'; 'Gasoy 17')

## 4. SEED SIZE: (Mature Seed)

Grams per 100 seeds

## 5. HILUM COLOR: (Mature Seed)

☐

1 = Buff

2 = Yellow

3 = Brown

4 = Gray

5 = Imperfect Black

6 = Black

7 = Other (Specify) \_\_\_\_\_

## 6. COTYLEDON COLOR: (Mature Seed)

☐

1 = Yellow

2 = Green

## 7. SEED PROTEIN PEROXIDASE ACTIVITY:

☐

1 = Low

2 = High

## 8. SEED PROTEIN ELECTROPHORETIC BAND:

☐1 = Type A (SP1<sup>a</sup>)2 = Type B (SP1<sup>b</sup>)

## 9. HYPOCOTYL COLOR:

☐

1 = Green only ('Evans'; 'Davis')

2 = Green with bronze band below cotyledons ('Woodworth'; 'Tracy')

3 = Light Purple below cotyledons ('Beeson'; 'Pickett 71')

4 = Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

## 10. LEAFLET SHAPE:

☐

1 = Lanceolate

2 = Oval

3 = Ovate

4 = Other (Specify) \_\_\_\_\_

## 11. LEAFLET SIZE:

3

1 = Small ('Amsoy 71'; 'A5312')

3 = Large ('Crawford'; 'Tracy')

2 = Medium ('Corsoy 79'; 'Gasoy 17')

## 12. LEAF COLOR:

2

1 = Light Green ('Weber'; 'York')

3 = Dark Green ('Gnome'; 'Tracy')

2 = Medium Green ('Corsoy 79'; 'Braxton')

## 13. FLOWER COLOR:

1

1 = White

2 = Purple

3 = White with purple throat

## 14. POD COLOR:

2

1 = Tan

2 = Brown

3 = Black

## 15. PLANT PUBESCENCE COLOR:

2

1 = Gray

2 = Brown (Tawny)

## 16. PLANT TYPES:

3

1 = Slender ('Essex'; 'Amsoy 71')

3 = Bushy ('Gnome'; 'Govan')

2 = Intermediate ('Amcor'; 'Braxton')

## 17. PLANT HABIT:

3

1 = Determinate ('Gnome'; 'Braxton')

3 = Indeterminate ('Nebsoy'; 'Improved Pelican')

2 = Semi-Determinate ('Will')

## 18. MATURITY GROUP:

0 5

1 = 000

2 = 00

3 = 0

4 = I

5 = II

6 = III

7 = IV

8 = V

9 = VI

10 = VII

11 = VIII

12 = IX

13 = X

## 19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

## BACTERIAL DISEASES:

0

Bacterial Pustule (*Xanthomonas phaseoli* var. *sojensis*)

0

Bacterial Blight (*Pseudomonas glycinea*)

0

Wildfire (*Pseudomonas tabaci*)

## FUNGAL DISEASES:

0

Brown Spot (*Septoria glycines*)Frogeye Leaf Spot (*Cercospora sojina*)

0

Race 1

0

Race 2

0

Race 3

0

Race 4

0

Race 5

0

Other (Specify)

0

Target Spot (*Corynespora cassicola*)

0

Downy Mildew (*Peronospora trifoliorum* var. *manshurica*)

0

Powdery Mildew (*Microsphaera diffusa*)

1

Brown Stem Rot (*Cephalosporium gregatum*)

0

Stem Canker (*Diaporthe phaseolorum* var. *caulivora*)



## 19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

## FUNGAL DISEASES: (Continued)

<input type="checkbox"/> 0	Pod and Stem Blight ( <i>Diaporthe phaseolorum</i> var; <i>sojae</i> )												
<input type="checkbox"/> 0	Purple Seed Stain ( <i>Cercospora kikuchii</i> )												
<input type="checkbox"/> 0	Rhizoctonia Root Rot ( <i>Rhizoctonia solani</i> )												
Phytophthora Rot ( <i>Phytophthora megasperma</i> var. <i>sojae</i> )													
<input type="checkbox"/> 2	Race 1	<input type="checkbox"/> 2	Race 2	<input type="checkbox"/> 2	Race 3	<input type="checkbox"/> 1	Race 4	<input type="checkbox"/> 1	Race 5	<input type="checkbox"/> 2	Race 6	<input type="checkbox"/> 2	Race 7
<input type="checkbox"/> 2	Race 8	<input type="checkbox"/> 2	Race 9	<input type="checkbox"/> 2	Other (Specify)	10, 11, 13, 15, 17							

## VIRAL DISEASES:

<input type="checkbox"/> 0	Bud Blight (Tobacco Ringspot Virus)
<input type="checkbox"/> 0	Yellow Mosaic (Bean Yellow Mosaic Virus)
<input type="checkbox"/> 0	Cowpea Mosaic (Cowpea Chlorotic Virus)
<input type="checkbox"/> 0	Pod Mottle (Bean Pod Mottle Virus)
<input type="checkbox"/> 0	Seed Mottle (Soybean Mosaic Virus)

## NEMATODE DISEASES:

Soybean Cyst Nematode ( <i>Heterodera glycines</i> )									
<input type="checkbox"/> 0	Race 1	<input type="checkbox"/> 0	Race 2	<input type="checkbox"/> 0	Race 3	<input type="checkbox"/> 0	Race 4	<input type="checkbox"/>	Other (Specify)
<input type="checkbox"/> 0	Lance Nematode ( <i>Hoplolaimus Colombus</i> )								
<input type="checkbox"/> 0	Southern Root Knot Nematode ( <i>Meloidogyne incognita</i> )								
<input type="checkbox"/> 0	Northern Root Knot Nematode ( <i>Meloidogyne Hapla</i> )								
<input type="checkbox"/> 0	Peanut Root Knot Nematode ( <i>Meloidogyne arenaria</i> )								
<input type="checkbox"/> 0	Reniform Nematode ( <i>Rotylenchulus reniformis</i> )								
<input type="checkbox"/>	OTHER DISEASE NOT ON FORM (Specify):								

## 20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

<input type="checkbox"/> 0	Iron Chlorosis on Calcareous Soil
<input type="checkbox"/>	Other (Specify)

## 21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

<input type="checkbox"/> 0	Mexican Bean Beetle ( <i>Epilachna varivestis</i> )
<input type="checkbox"/> 0	Potato Leaf Hopper ( <i>Empoasca fabae</i> )
<input type="checkbox"/>	Other (Specify)

## 22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape		Seed Coat Luster	
Leaf Shape		Seed Size	
Leaf Color		Seed Shape	
Leaf Size		Seedling Pigmentation	
			8

## 23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

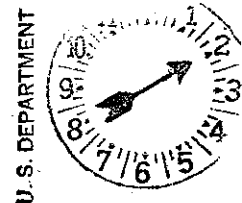
VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM. PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/ POD
				CM Width	CM Length	% Protein	% Oil		
Submitted									
Name of Similar Variety									

## PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.R. and R.I. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBTI-A<sub>2</sub> in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

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SEP 16 1985



AMS

PVPD

8500210

'DSR-297'

Dairyland Seed Company, Inc.

Addition to  
Exhibit C - Objective Description of Variety

'DSR-297' has a 'dull' seed coat luster.



DAIRYLAND SEED CO., INC.

P.O. Box 958,  
West Bend, WI 53095

3570 Hwy. H  
414-338-0163

DEPENDABLE SEED SINCE 1907



October 28, 1986

8500210

PLANT VARIETY PROTECTION APPLICATION

EXHIBIT E

DSR-297 was originated and developed by the plant breeding team of Dr. Paul Sun, Dr. Bill Campbell, and Mr. Hunt Wiley. By agreement between these employess and Dairyland Seed Co., Inc., all rights to any invention, discovery, or development made by an employee are assigned to Dairyland Seed Co., Inc. No rights to such invention, discovery, or development are retained by the employees.